#6

SEQUENCE LISTING

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U'Ren, Jack
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<120> Nucleic Acid Amplification Using an RNA Polymerase and DNA/RNA Mixed Polymer Intermediate Products

<130> 018048-001710US

<140> US 10/077,383
<141> 2002-02-15

<150> US 60/296,812
<151> 2001-06-07

<160> 33

<170> PatentIn Ver. 2.1

<210> 1
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:T7 phage-encoded RNA polymerase (RNAP) recognition sequence

<400> 1
taatacgact cactataggg aga 23

<210> 2
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SP6 phage-encoded RNA polymerase (RNAP) recognition sequence

<400> 2
atttaggtga cactatagaa gaa 23

<210> 3
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:T3 phage-encoded RNA polymerase (RNAP) recognition sequence

<400> 3
aattaaccct cactaaaggg aga 23

<210> 4
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:K11
phage-encoded RNA polymerase (RNAP) recognition
sequence

<400> 4
aattagggca cactataggg aga 23

<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(A)-12-20
homopolymer spacer sequence

<220>
<221> modified_base
<222> (13)..(20)
<223> a at positions 13-20 may be present or absent

<400> 5
aaaaaaaaaa aaaaaaaaaa 20

<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(T)-12-20
homopolymer spacer sequence

<220>
<221> modified_base
<222> (13)..(20)
<223> t at positions 13-20 may be present or absent

<400> 6
tttttttttt tttttttttt 20

<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(C)-12-20
homopolymer spacer sequence

<220>
<221> modified_base
<222> (13)..(20)
<223> c at positions 13-20 may be present or absent

<400> 7
cccccccccc cccccccccc 20

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(G)-12-20
homopolymer spacer sequence

<220>
<221> modified_base
<222> (13)..(20)
<223> g at positions 13-20 may be present or absent

<400> 8
gggggggggg gggggggggg 20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(XY)-n spacer
sequence

<220>
<221> modified_base
<222> (13)..(20)
<223> n at positions 13-20 may be present or absent

<220>
<221> modified_base
<222> (1)..(20)
<223> n = a, g, c or t, where positions 1, 3, 5, 7, 9, 11,
13, 15, 17 and 19 = X and positions 2, 4, 6, 8, 10,
12, 14, 16, 18 and 20 = Y, in the formula (XY)-n, and
where X and Y are independently selected from a, g, c
or t, and X and Y are not the same

<400> 9
nnnnnnnnnn nnnnnnnnnn 20

<210> 10
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence

<400> 10
aaagggaaga gagagg 16

<210> 11
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence

<400> 11
cttttttttc ttccc 15

<210> 12
<211> 8
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence

<400> 12
gcgcccgc 8

<210> 13
<211> 8
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence

<400> 13
atttaatt 8

<210> 14
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence

<400> 14
caaacccaa 9

<210> 15
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:RNA polymerase
(RNAP) active site consensus sequence

<220>
<221> MOD_RES
<222> (2)..(8)
<223> Xaa = any amino acid

<400> 15
Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Gly Ser
1 5 10

<210> 16
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMP010
Amplification Primer

<400> 16
aatttaatac gactcactat agggagagag agagagagac tcctaaagtc actcctaacg 60

<210> 17
<211> 61
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMP011
Amplification Primer

<400> 17
aatttaatac gactcactat agggagagag agagagagag ctattcgccg tgtccctctc 60
g 61

<210> 18
<211> 61
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMP011S
Amplification Primer

<400> 18
aatttaatac gactcactat agggagaagg agaaaaagag ctattcgccg tgtccctctc 60
g 61

<210> 19
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMP012 PCR
Primer

<400> 19
gctattcgcc gtgtccctct cg 22

<210> 20
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMP013 PCR
Primer

<400> 20
ctcctaaagt cactcctaac g 21

<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Bump003 Bumper
Primer

<400> 21
ctgtgtccct atctgttaca 20

<210> 22
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMPSig5-B
Signal Oligonucleotide

<400> 22
ccatcctaaa gccaacacct aa 22

<210> 23
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:AMPSig5AS-B
Signal Oligonucleotide

<400> 23
ttaggtgttg gctttaggat gg 22

<210> 24
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:T7 Promoter

<400> 24
aatttaatac gactcactat agggagagag agagagaga 39

<210> 25
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:T7 Promoter S

<400> 25
aatttaatac gactcactat agggagaagg agaaaaaga 39

<210> 26
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Amplicon model
template

<400> 26
aatttaatac gactcactat agggagagag agagagagac tcctaaagtc acctcctaac 60
gtccatccta aagccaacac ctaaagccta cacctaaaga cccatcaagt caacgcctat 120
cttaaagttt aaacataaag accagaccta aagaccagac ctaaagacac tacataaaga 180
ccagacctaa agacgccttg ttgttagcca taaagtgata acctttaatc attgtcttta 240
ttaatacaac tcactataag gagagacaac ttaaagagac ttaaaagatt aatttaaaat 300
ttatcaaaaa gagtattgac ttaaagtcta acctatagga tacttacagc catcgagagg 360
gacacggcga atagc 375

<210> 27
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence
standard structure of AMP011 Primer

<400> 27
gggagagaga gagagaga 18

<210> 28
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:spacer sequence
variant modified structure of AMP011Sc Primer

<400> 28

gggagaagga gaaaaaga 18

<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(XY)-n spacer sequence, where X = a and Y = g

<220>
<221> modified_base
<222> (13)..(20)
<223> a or g at positions 13-20 may be present or absent

<400> 29
agagagagag agagagagag 20

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(X)-n spacer sequence

<220>
<221> modified_base
<222> (1)..(20)
<223> n = a, g, c or t, where positions 1-20 are all the same nucleotide

<220>
<221> modified_base
<222> (13)..(20)
<223> n at positions 13-20 may be present or absent

<400> 30
nnnnnnnnnn nnnnnnnnnn 20

<210> 31
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(XY)-n spacer sequence, where X = a, Y = g and n = 9

<400> 31
agagagagag agagagag 18

<210> 32
<211> 18
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(XY)-n spacer sequence complement, where X = a, Y = g and n = 9

<400> 32
ctctctctct ctctctct 18

<210> 33
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:(X)-n spacer sequence, where n = 18

<220>
<221> modified_base
<222> (1)..(18)
<223> n = a, g, c or t, where positions 1-18 are all the same nucleotide

<400> 33
nnnnnnnnnn nnnnnnnn 18